

## **Assessment for learning in Inquiry –Kath Murdoch**

In working with groups of teachers, I often find myself asking the simple question: “Why assess?” Invariably, the discussion that follows highlights the distinction between what many regard as less significant ‘system level’ expectations and what is perceived as more authentic and useful purposes in the immediate world of classrooms. When we tease out the purposes associated with the latter, the collective response always boils down to one basic principle –assessment practices should lead to improved student learning.

**One of the core features of inquiry based learning is the use of assessment to continually inform plans made for and with students.** At its best, inquiry based learning has a kind of ‘built in’ assessment layer that, when understood and harnessed by the teacher, enables powerful learning to take place. In rigorous inquiry, most of the teaching itself is a context for assessment. The relationship between ‘assessment’ and ‘instruction’ is continuous and reciprocal and teachers have regular opportunities to check in on students learning as they proceed along the path to deeper understanding. Whilst summative assessment tasks are still used in inquiry (and these are often formulated around the purpose of ‘taking action’ or ‘application’) – good inquiry teachers cannot wait for summative assessments to reveal what it is students have learned. **It’s what students reveal along the way that really counts.**

Over the many years I have worked in the field of inquiry-based teaching and learning, I have been privileged to witness various ways in which expert teachers weave formative assessment into inquiry learning journeys. These teachers bring an assessment ‘disposition’ to all they do – questioning strategically, listening carefully to student talk and consciously analysing what students’ work reveals them. Their feedback to students then becomes more immediate and, ultimately, transformative. As I watch these teachers, it is obvious that no single assessment principle or practice is guiding their interaction with students. Rather, they have a ‘suite’ of practices that is activated throughout the inquiry process. That suite of practices is explored below.

### **Letting them in on the secret**

As has been described elsewhere, many practices in the past have been akin to giving students a jigsaw puzzle without the picture on the lid of the box! When we make ‘learning intentions’ clear to students – they are more likely to make connections to those intentions as they engage in tasks. Knowing why they are doing what they are doing is critical to developing deep understanding. Within an inquiry based classroom, this principle can be applied in a number of ways. Constructing and displaying a powerful ‘essential question’ (for example “Is Australia *really* the lucky country?”) for investigation acts as a focusing device and provides context. Displaying what are often referred to as ‘understanding goals’ to students – in language that is accessible to them also invites them into the frame of the inquiry. Like the deepening of shades on a paint colour chart, students notice the gradual deepening of these understandings as skilful teachers continuously prompt return to and reflect on them. Similarly, the intentions we have for students to develop particular skills as a result of the inquiry they are undertaking can also be made public and transparent to the students

themselves. For young students, these may be described quite simply, for example “In this inquiry, we are learning how to take different roles when we are working in groups” or “In this inquiry, we are learning how to write open ended questions to guide our investigations”. When teaching and learning intentions are explicit. Students are clearer about what it is they expected to demonstrate through assessment tasks.

### **Activation and analysis of prior thinking and learning**

The early stages of inquiry are often glibly associated with the questions “What do you know and what do you want to know?” Unfortunately, the real purpose of this early phase is often lost in meaningless brainstorming, novelty ‘hooking’ activities or lists of random questions about which students may care very little. In rigorous inquiry, teachers spend initial sessions activating and assessing what it is students bring to the inquiry in terms of experiences, interests, understandings and misconceptions. The central purpose of this work is to gather information *about students’ current thinking* in order to fine-tune plans made for subsequent investigation. Evidence of student thinking (in the form of work samples, recorded dialogue, video, observation notes) should be brought to collegial planning meetings and analysed. In true formative assessment we ask “What is it that our students are revealing to us and what do we need to plan to do next?” The activation of prior thinking is even more powerful as part of the assessment suite when students are invited to regularly return to evidence of their initial thinking. Using the simple thinking routine, for example, of asking students to identify ‘how their thinking has changed’ can give us evidence of growth at the same time as allowing the student to recognise and articulate their own progress. It has long been understood that the activation of prior learning actually allows *new* learning to be better integrated into the learners’ thinking. This is a perfect example of assessment AS and FOR learning in inquiry.

### **Pedagogy that promotes continual revelation of thinking**

As students move through an inquiry – whether it be a short, interest based project involving a small group of five year olds or a sustained, collaborative investigation undertaken over a period of weeks by older students, teachers can glean an enormous amount of rich assessment data simply through the use of quality, layered teaching strategies that encourage students to regularly reveal their thinking through talk, writing drawing and other forms of expression. Even the way a teacher expects students to respond to questions in a group or class discussion can affect the extent to which students reveal their thinking. When students are constrained by larger groups, closed questioning, ‘hands up’ and little thinking time – discussions yield very little evidence of thinking. When most work is carried out individually and quietly rather than in groups with active, focused talk, again, there are limited opportunities for students to reveal their growing understanding or misconceptions. Focussed and sustained talk, open ended and challenging tasks and quality teacher questioning lead to more opportunities for students to reveal what they are thinking and understanding throughout an inquiry – and teachers can then use what they hear and see to design the next step of the journey with improvement in mind. Reducing the amount of teacher talk and increasing the degree to which we can really listen to and observe our students as learners goes a long way to providing us with vital information about the progression of understanding throughout a unit.

### **Regularly ‘pressing the pause button’ to reflect**

Teachers are increasingly aware of the value of reflection in helping students ‘bed down’ their learning into long term memory and in helping students to become more aware of the learning they are doing. When structured reflection is a regular feature of the inquiry journey, teachers also gain another valuable opportunity to assess learning. The use of reflection strategies enables us to get a brief ‘window’ on thinking as the inquiry progresses and to make adjustments to our teaching in response. These reflections may be written or verbal. They may be simple responses to sentence starters (eg: “the most important thing I have learned so far is....”) or more complex written entries in a journal. The inclusion of reflection strategies throughout an inquiry can provide important insights into the emerging understandings of individual students which in turn lead to fine tuning of subsequent teaching.

### **Co-construction of ‘success criteria’**

Teachers who use inquiry based methodologies have a firm belief in the transformative power of ownership. When students feel they are the ones ‘doing the learning’ rather than the teacher ‘doing the learning to them’ they are undoubtedly more engaged and with engagement comes increased potential for learning. One way to give students more ownership over assessment in inquiry is to involve them in the development of the criteria by which they will be assessed. For example, students undertaking an inquiry into the question “What does it mean to live a healthy lifestyle?” may decide to create some kind of text to inform or advise others about healthy living. Before embarking on the task, teachers and students work together to build criteria by which the quality of this text will be judged. Whether in the form of checklists, rubrics or capacity matrices – these criteria both guide the students as they compose the text and become a basis for self, peer and teacher assessment. Developing ‘success criteria’ in itself can be done through a process of inquiry. To determine “What makes a high quality power point presentation’ for instance, students can examine analyse the characteristics of high and low quality examples.

### **Self assessment**

Much has been written about the immense value to students of self-assessment. Through self assessment, we help students come to understand themselves as learners, to be more conscious and aware of what it is they are learning and need to work on. Self assessment is a critical skill for learning – life long and life wide. In inquiry based learning, students should be regularly asked to consider how well they think they are developing their understandings and skills.

### **Understanding understanding**

Inquiry learning is ultimately about the quest for deep understanding as well as increased competence in transferable learning skills. In our assessment of understanding, we need to know what understanding ‘looks like’ – how to recognise more clearly when our kids have it. This is, in many ways, the ‘holy grail’ of teaching – how do we know when they get it? The work of researchers such as Wiggins and McTighe (1998), Perkins (1993) and Blythe (2000) have all contributed to a growing body of ways we can ‘recognise’ understanding. For example, we know that when students are able to *explain* (not just re-tell) an idea – or when they can *interpret* an idea in multiple ways, they are more likely to understand

it. Teachers need to arm themselves with an understanding of understanding. This will ensure a better fit between the tasks we design for students and our confidence in evidence of learning.

## **Conclusion**

In inquiry, the assessment of learning is integral to the learning process itself. Knowing what we are looking for and providing students with opportunities to actively participate in their own learning journey helps ensure that assessment is a dynamic and purposeful layer to all we do.

Blythe, T. and associates (1998) *The Teaching for Understanding Guide* Jossey Bass San Francisco

**David Perkins** American Educator: The Professional Journal of the American Federation of Teachers; v17 n3, pp. 8,28-35, Fall 1993.

Wiggins, G. and McTighe, J. (1998) *Understanding by Design*, ASCD